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NEPHTYIDAE (ANNELIDA: POLYCHAETA) FROM THE YELLOW SEA

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ABSTRACT

Nine species of nephtyid polychaetes were collected and examined from the Yellow Sea. Specimens were sampled using a grab in the subtidal zone of the Yellow Sea and hand corer in the intertidal zone of the eastern part of the Yellow Sea. Eight of the 11 known species in Korean waters were represented in the collections. A new species and three new records of nephtyid polychaetes from the Yellow Sea are described. This new polychaete *Nephtys chemulpoensis* n. sp. occurs in the intertidal mud and sand flats of Inchon, Korea. Three other species, *Aglaophamus* cf. *gippslandicus* Rainer and Hutchings, 1977, *Nephtys californiensis* Hartman, 1938 and *N. neopolybranchia* Imajima and Takeda, 1987 are new to the Korean polychaete fauna.

Despite numerous studies on the polychaete fauna in the Yellow Sea, there are few comprehensive taxonomic investigations of this invertebrate group. However, some systematic studies of the Nephtyidae (Polychaeta, Annelida) have been made in the Yellow Sea (Uschakov and Wu, 1979; Lee and Jae, 1983). Especially in Korean waters, Lee and Jae (1983) have described and reported four genera, seven species and one subspecies belonging to the family Nephtyidae from the Yellow Sea.

The present study was conducted to further our understanding of the composition and distribution of the Yellow Sea fauna and to assess the species diversity of benthic polychaetous annelids. The results will be used to evaluate the possible influence of pollution on the marine ecosystem of the Yellow Sea.

In this paper, one new species and three new records of nephtyid polychaetous worms from the Korean waters are described from the Yellow Sea. The new species, *Nephtys chemulpoensis,* occurs in the higher intertidal mud flat, Inchon, Korea. The other three unrecorded nephtyids are newly added to the Korean fauna: *Aglaophamus* cf. *gippslandicus* Rainer and Hutchings, 1977, *Nephtys californiensis* Hartman, 1938, *N. neopolybranchia* Imajima and Takeda, 1987.

MATERIALS AND METHODS

Samples collected from 49 subtidal stations (Fig. 1) were taken from the research vessel of the Korea National Fisheries Research and Development Agency in the Yellow Sea between September 17 and October 2, 1992. The cruise was organized within the framework of Korea-China International Cooperative Project of the Yellow Sea. Additional material was also provided from the benthic samples collected from the tidal flats surrounding Inchon and Kyonggi Bay, Korea (Fig. 1). Samples were then collected from the intertidal and from subtidal of depths between 24 and 104 m in the Yellow Sea from both coarse sand to silty sediments. Three replicate 0.1 m^2 van Veen grab samples were collected at each subtidal station in the Yellow Sea. In addition, 30 replicate samples have been collected bimonthly from May 1989 to July 1994 by rectangular can core (15 × 20 × 30 cm) in Chokchon station of the macrotidal mud flat on the west coast of Korea. Samples were sieved through 1.0-mm mesh and preserved in 10% formalin. The holotype and some other paratypes were deposited in the U.S. National Museum of Natural History, Smithsonian Institution, Washington, D.C. Other specimens examined have been deposited in the Benthic Ecology Laboratory, Department of Oceanography, Inha University, Korea.

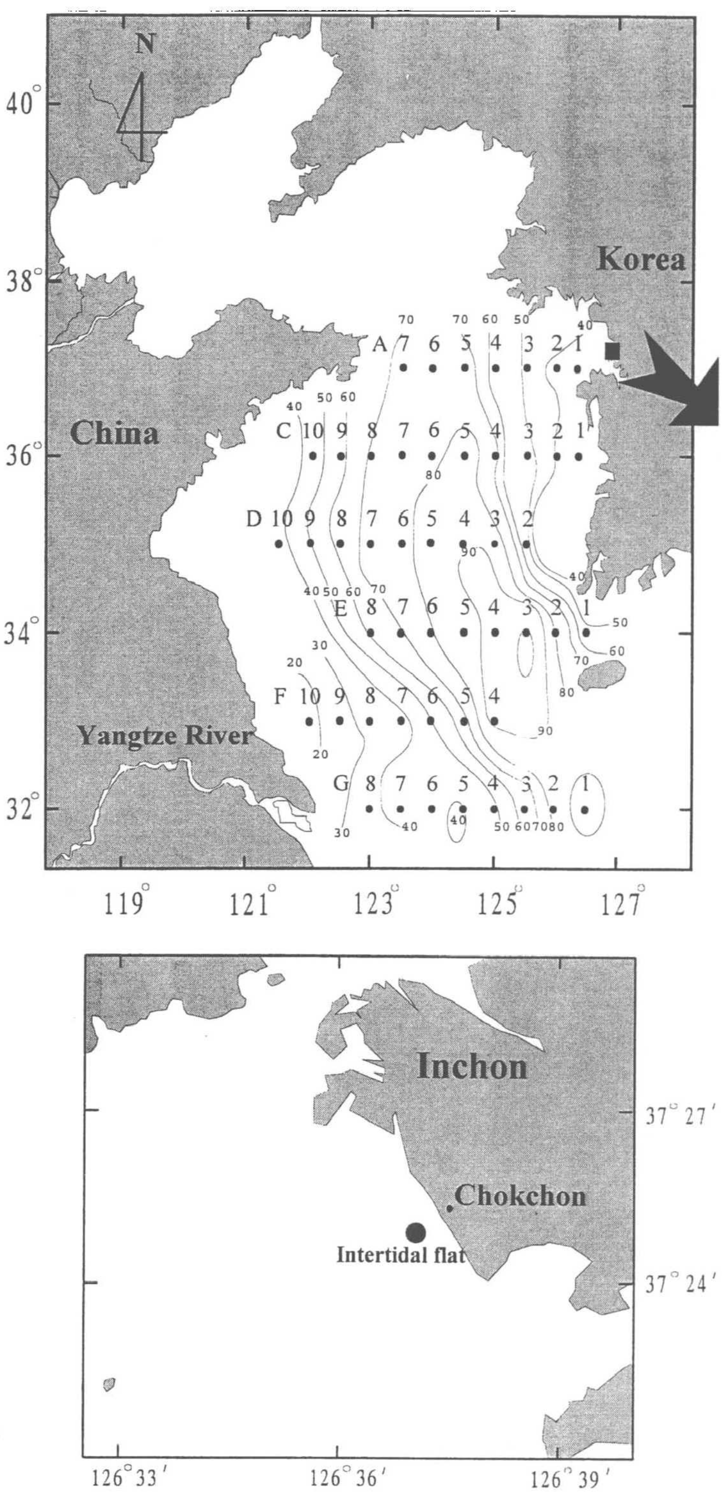

Figure 1. Map of the collecting sites with depth contours in meters.

Systematics

Key to Korean Genera and Species of the Family Nephtyidae

1a.	Interramal cirri present	2
1b.	Interramal cirri absent; lyrate setae present	*Micronephtys sphaerocirrata orientalis*
2a.	Interramal cirri involute	3
2b.	Interramal cirri recurved	*Nephtys* 5
3a.	Proboscis with papillae	4
3b.	Proboscis without papillae	*Inermonephtys inermis*
4a.	Neuropodium with a superior lobe	*Aglaophamus sinensis*
4b.	Neuropodium without a superior lobe	*A.* cf. *gippslandicus*
5a.	Interramal cirri foliaceous	6
5b.	Interramal cirri sickle-like	8
6a.	Interramal cirri absent on the posterior segments	*N. oligobranchia*
6b.	Interramal cirri present on the posterior segments	7
7a.	Preacicular lobe developed and rounded; interramal cirri first present from 4–5th setiger	*N. polybranchia*
7b.	Preacicular lobe low; interramal cirri first present from 3th setiger	*N. neopolybranchia*
8a.	Proboscis without a middorsal papillae	9
8b.	Proboscis with a middorsal papillae	10
9a.	Proboscis with rough proximal surface	*N. caeca*
9b.	Proboscis with smooth proximal surface	*N. californiensis*
10a.	Interramal cirri present before 8th setiger; proboscis with 22 bifid terminal papillae	11
10b.	Interramal cirri first present from 9th setiger; proboscis with 20 rows of terminal papillae	*N. chemulpoensis* new species
11a.	Neuropodium with large postacicular lobe	*N. longosetosa*
11b.	Neuropodium with small and low postacicular lobe	*N. ciliata*

Aglaophamus cf. *gippslandicus* Rainer and Hutchings, 1977
Figures 2a–g

Aglaophamus gippslandicus Rainer and Hutchings, 1977: p. 307–313, figs. 1–3, table 1.

Material Examined.—St. E07, 34°00'N 123°30'E, 70 m, 2 specimens.

Description.—All individuals lack posterior ends. Largest fragment measures 7 mm long and 1.4 mm wide excluding setae in the widest region; it has 21 setigerous segments.

Prostomium approximately rectangular. Two pair of antennae. First pair continuous with anterior lateral edge, directed obliquely. Second pair protrude from ventral side, directed ventrally at right angle. Paired nuchal organs present in the posterior corner of the prostomium. Eyespots absent (Fig. 2a, b).

First parapodia biramous, directed anteriorly. Acicular lobes of both rami conical. Dorsal and ventral cirri digitiform; ventral cirrus well developed, larger than the dorsal cirrus (Fig. 2c).

Interramal cirri first present from the third setiger. Acicular lobes of both rami triangular on third parapodium. Preacicular lobe of notopodium slightly rectangular, lower than the acicular lobe. Preacicular lobe of neuropodium bilobed, deeply incised (Fig. 2d). Postacicular lobe of notopodium roughly rounded, lower than acicular lobe. Postacicular lobe of neuropodium rectangular, slightly lower than acicular lobe. Dorsal cirrus basally thick, distally tapering. Ventral cirrus digitiform (Fig. 2d, e).

In the 20th parapodium, the acicular lobe of both rami conical, distally pointed. Preacicular lobe of notopodium roughly rounded, lower than acicular lobe. Preacicular lobe of neuropodium rectangular, slightly notched. Postacicular lobe of notopodium rounded, slightly bilobed, lower than acicular lobe. Postacicular lobe of neuropodium rounded, lower than acicular lobe. Dorsal cirrus basally wider, distally pointed. Interramal cirrus involuted. Ventral cirrus digitate (Fig. 2f, g).

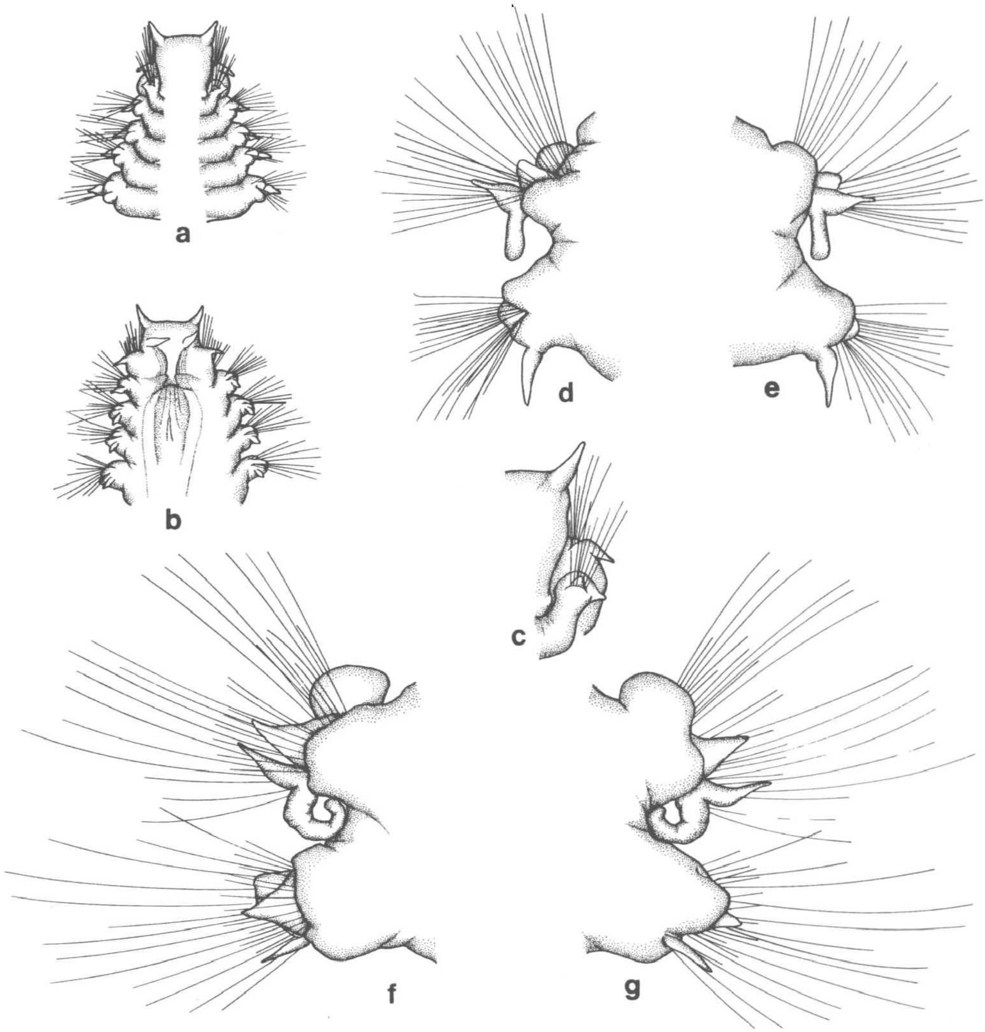

Figure 2. *Aglaophamus* cf. *gippslandicus* Rainer and Hutchings: a, anterior end, in dorsal view, ×60; b, the same, in ventral view, ×60; c, first parapodium, ×140; d, third parapodium, in anterior view, ×140; e, the same, in posterior view, ×140; f, 20th parapodium, in anterior view, ×140; g, the same, posterior view, ×140.

Setae of two types. Preacicular facicle barred, short. Postacicular fascicle has spinulose setae with fine denticles on the cutting edge. Lyrate setae absent.

Discussion.—Only two anterior fragments were collected; capillary setae and papillae on the proboscis are not observed. The present specimens differ somewhat from the description of Rainer and Hutchings (1977); the dorsal cirri of the present specimens are present from the first setiger not from second setiger as reported in Rainer and Hutchings (1977). However, the specimens examined are considered most closely related to *Aglaophamus gippslandicus* Rainer and Hutchings. In addition, the present specimen is quite similar to *A. gippslandicus bisectus* Imajima and Takeda, 1985, from Japan, but these two species are different in neuropodial postacicular lamellae. In median parapodia, the neuropodial postacicular lamella are broadly rounded and visible in anterior view in our specimens, but that of Imajima and Takeda is triangular and hidden behind the acicular lobe.

Distribution.—Australia, Korea (Yellow Sea).

Habitat.—The finding of this rare species in the silty bottom of the Yellow Sea from a depth of 70 m is the upper limit of its distribution recorded to date. However, further studies of taxonomy and distribution of this species may provide more adequate explanation of how this species previously only found in the Southern Hemisphere appeared in the Yellow Sea of the Northern Hemisphere.

Nephtys neopolybranchia Imajima and Takeda, 1987
Figures 3a–k

Nephtys neopolybranchia Imajima and Takeda, 1987: p. 57–59, fig. 9 a–k.

Material Examined.—St. C03, 36°00'N 125°30'E, 64 m, 1 specimen; St. G06, 32°00'N 124°00'E, 42 m, 15 specimens.

Description.—Largest and entire specimen measures 17 mm in length and 0.7 mm in width and consists of 89 setigers.

Prostomium rectangular with slightly convexed anterior margin and comparatively elongate (about twice as long as wide). A dark pigmented diamond-shaped pattern present in the median part of the prostomium. First antennae are a prolongation of the anterior lateral edge and directed obliquely. No nuchal organ visible. A pair of eyespots situated at the anterior corners of the third setiger but in some specimens not visible. Second antennae inserted on the ventral side of prostomium, slightly shorter than the first ones (Figs. 3a, b).

Proboscis, seen only by dissection, has 22 bifid terminal papillae. Larger middorsal papilla absent. Proximal surface rough, covered with wartlike processes (Fig. 3c). Jaws conical (Fig. 3d).

First parapodia biramous, small, directed anterioly. Dorsal and ventral cirri well developed and digitiform (Fig. 3e). Interramal cirri first present from the third setiger and continue to near the posterior end.

In third parapodium, acicular lobes of both rami rounded. Preacicular lobe of notopodium rounded and as long as the acicular lobe, whereas the neuropodial one slightly higher than the acicular lobe. Postacicular lobe of notopodium small and ovate, whereas the neuropodial one ligulate and higher than the acicular lobe. Dorsal cirrus distally pointed and neuropodial one digitiform (Fig. 3f, g).

In 25th parapodium, noto- and neuropodial acicular lobes rounded. Preacicular lobe of notopodium subtriangular, similar to acicular lobe in height, whereas neuropodial one rounded, lower than the acicular lobe. Postacicular lobe of notopodium ovate, slightly higher than acicular lobe. Neuropodial one rounded, elongate, higher than the acicular lobe (Fig. 3h, i).

Setae of two kinds. Preacicular setae barred structure, postacicular setae spinulose (Figs. 3j, k). Lyrate setae absent.

Discussion.—The present specimens agree well with the following description made by Imajima and Takeda (1987): 1) interramal cirri first present from the 3rd setiger; and 2) larger middorsal papilla is absent. However, the notopodial preacicular lamella is distinctive. The lamella of present specimens is as long as the acicular lobe, but the lamella reported in Imajima and Takeda (1987) is shorter than the acicular lobe. In addition, the proboscis of the specimens we

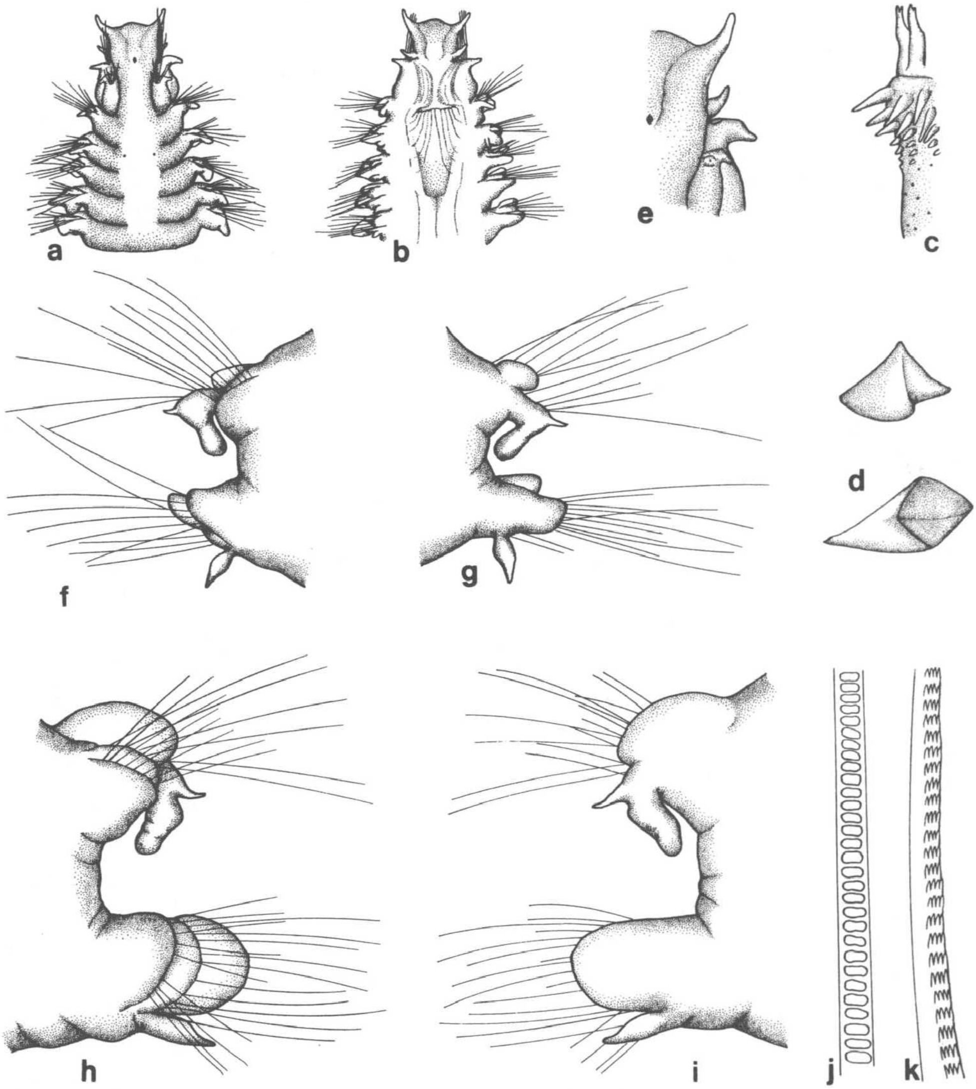

Figure 3. *Nephtys neopolybranchia* Imajima and Takeda: a, anterior end, in dorsal view, ×60; b, the same, in ventral view, ×60; c, part of proboscis, in dorso-lateral view, ×140; d, jaws, ×140; e, first parapodium, in dorsal view, ×140; f, third parapodium, in anterior view, ×140; g, the same, in posterior view, ×140; h, 25th parapodium, in anterior view, ×140; i, the same, posterior view, ×140: j, part of barred seta in preacicular fascicle, ×1250; k, part of spinulose seta in postacicular fascicle, ×1,250.

examined showed 22 bifid terminal papillae, but the holotype has 20 bifid terminal papillae (Lovell, pers. comm.). Therefore, more detailed studies are needed for the verification of variation in number of the bifid terminal papillae in the proboscis.

Distribution.—Yellow Sea, Korea and Usujiri Bay, Hokkaido, Japan.

Habitat.—Collected in the Eastern Yellow Sea in muddy sand bottom at 64 m and in the entrance of the Yellow Sea in sandy bottom at 42 m.

Nephtys chemulpoensis new species
Figures 4a–h; 5a–d

Material Examined.—37°25′00″N 126°37′30″E, macrotidal mud flat, Kyonggi Bay, Korea, 429 specimens. No ovigerous individuals. Holotype (USNM 172569), collected Jan. 28, 1992 at Chokchon station, Tongchun-Dong, Inchon, Korea; 10 paratypes (USNM 172570), collected Jan. 28, 1992 at Chokchon station, Tongchun-Dong, Inchon, Korea; Other specimens collected from the upper part of the intertidal mud flats surrounding Inchon and Kyonggi Bay, Korea including Chokchon area and deposited in the collections of the Benthic Ecology Laboratory, Department of Oceanography, Inha University, Korea.

Description.—Largest specimen measures 43 mm in length and 2.4 mm in width including parapodia consisting of 71 setigers.

Prostomium approximately rounded with a slightly convex front. Two pair of antennae. First pair slightly longer than the second. First pair inserted at the frontal edge of the prostomium, second pair on the ventral side of the prostomium. They are digitiform and directed obliquely. A pair of nuchal organs present in the posterior corner of the prostomium. No visible eyespots (Figs. 4a, b).

Proboscis has 20 rows of bifid terminal papillae, and 22 rows of subterminal papillae with 1 to 4 papillae in each row. Subterminal papillae small, present on the distal one-third of the proboscis, gradually diminish in size posteriorly. A larger middorsal papilla present. Proximal surface smooth (Figs. 4c, d). Jaws conical, distally pointed (Figs. 4e).

First parapodia biramous, directed anteriorly. Acicular lobes of both rami rounded. Dorsal and ventral cirri well developed, digitiform (Fig. 4f).

Interramal cirri first present from the 9th setiger. In the 9th parapodium, acicular lobes of both rami rounded. Preacicular lobes of noto- and neuropodium lower than the acicular lobe. Postacicular lobe of notopodium slightly lower than acicular lobe, whereas neuropodial one lingulate and extends beyond the tip of the acicular lobe. Dorsal cirrus rounded, then ventral cirrus digitiform. Interramal cirrus small, lingulate (Figs. 5a, b).

In the 27th parapodium, notopodial acicular lobe slightly incised whereas neuropodial ones bluntly triangular shape. Preaciular lobes of both rami lower than the aciular ones. Notopodial postacicular lobe slightly longer than the acicular one, slightly incised. Notopodial postacicular lobe lingulate, longer than the acicular one (Fig. 5c, d).

Setae of two kinds. Preacicular fascicle has barred setae. Postacicular fascicle has spinulose setae with fine denticles on cutting edge (Figs. 4g, h).

Discussion.—*Nephtys chemulpoensis* n. sp. is characterized by 1) a proboscis that has 20 rows of bifid terminal papillae and 22 rows of subterminal papillae with 1 to 4 papillae in each row with the exception of seven specimens with 22 rows of subterminal papillae with 1 to 5 papillae in each row, based on 56 specimens examined; 2) a larger middorsal papilla always present; and 3) interramal cirri first present from the 9th setiger, based on the data from 120 specimens examined.

N. chemulpoensis n. sp. is close to *N. californiensis* Hartman, 1938 and *N. longosetosa* Oersted, 1843. However, this species can be distinguished from these two other species as shown in Table 1.

Distribution.—Presently known only from the eastern part of the Yellow Sea, Korea (Fig. 1).

Habitat.—Korean intertidal mud or sand flat in the eastern side of the Yellow Sea. This species is fairly abundant at the upper zone of intertidal area, when mud content is high in Kyonggi Bay, Korea.

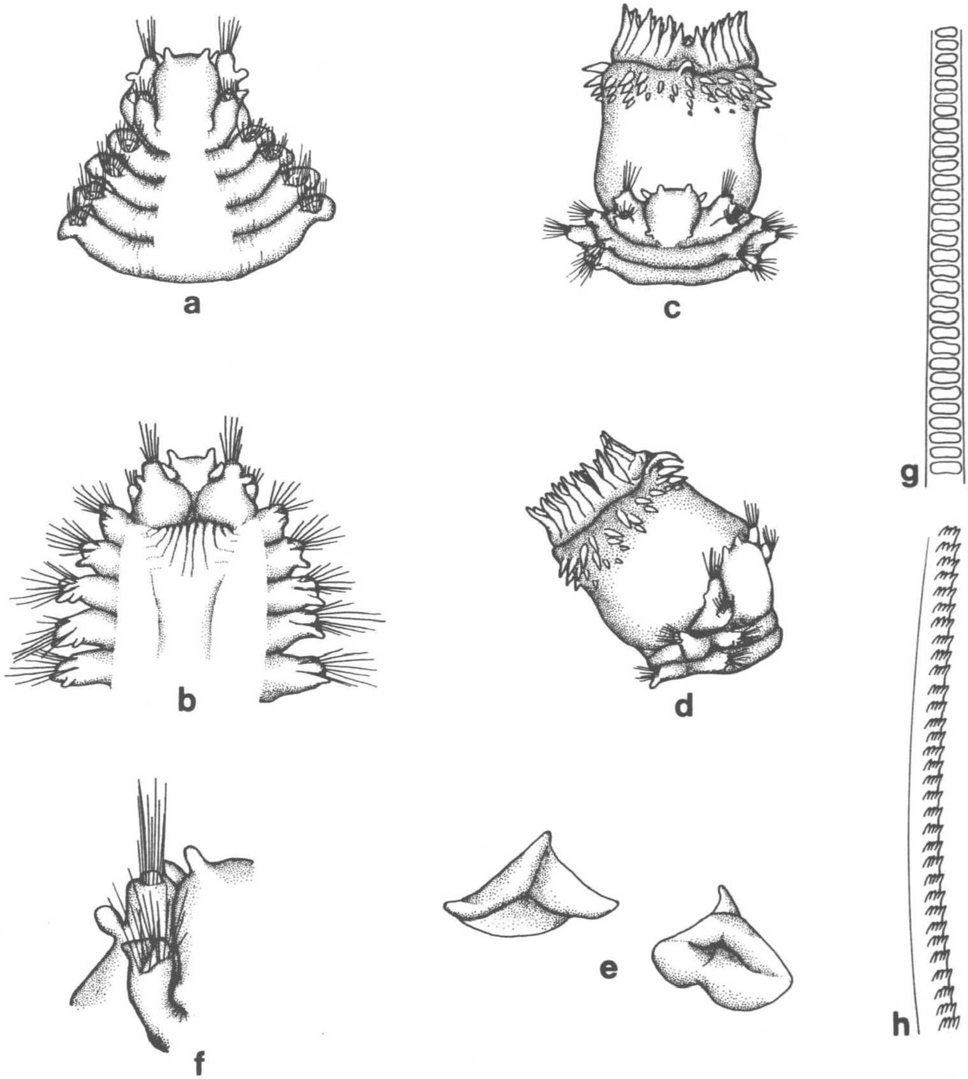

Figure 4. *Nephtys chemulpoensis*. n sp: a, anterior end, in dorsal view, ×60; b, the same, in ventral view, ×60; c, proboscis, in dorsal view, ×60; d, the same, in dorso-lateral view, ×60; e, jaws, ×140; f, first parapodium, in dorsal view, ×140; g, part of barred seta in preacicular fascicle, ×1,250; h, part of spinulose seta in postacicular fascicle, ×1,250.

Table 1. Species characteristics of *Nephtys chemulpoensis* new species and two similar species of *Nephtys* found in the Yellow Sea and in the tidal flats of the West Sea of Korea

Species characters	*N. chemulpoensis* new species	*N. californiensis*	*N. longosetosa*
Number of terminal papillae	20 bifid terminal papillae	20(bifid) + 2(single middorsal and midventral)	22 (bifid)*
Larger middorsal papilla	Present	Absent	Present
Interramal cirri begin	9th setiger	3th setiger	3th setiger
Neuropodial postacicular lamella	Longer than acicular lobe	Equal to acicular lobe	Longer than acicular lobe

* Cited from Imajima and Takeda (1987).

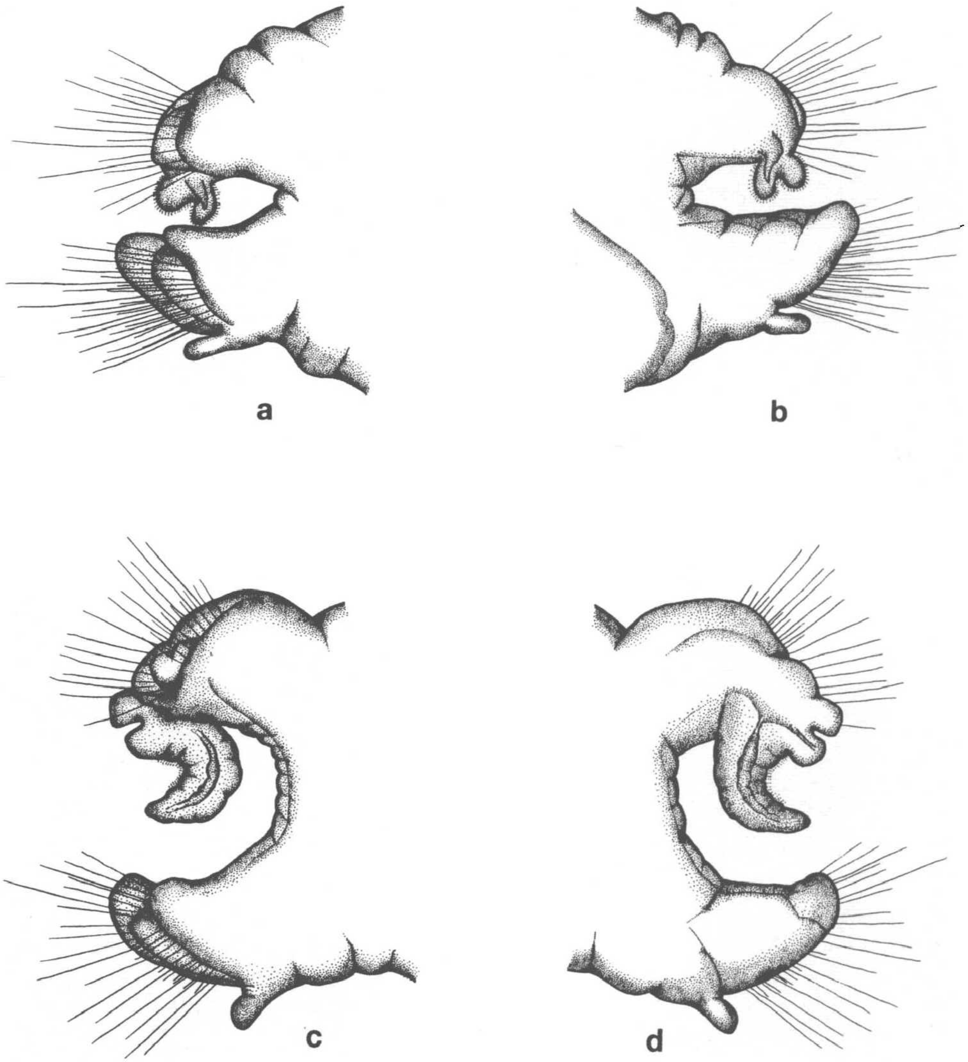

Figure 5. *Nephtys chemulpoensis.* n sp: a, 9th parapodium, in anterior view, ×140; b, the same, in posterior view, ×140; c, 27th parapodium, in anterior view, ×140; d, the same, posterior view, ×140.

Etymology.—The specific name (*chemulpo,* Korean) refers to the old name of type locality, Inchon, Korea.

Nephtys californiensis Hartman, 1938
Figures 6a–g; 7a–d

Nephtys californiensis Hartman, 1938: p. 150–151, fig. 64 A–I; Hartman, 1940: p. 240; Hartman, 1950: p. 103; Hartman, 1968: p. 579–580, fig. 1–3; Uschakov and Wu, 1962: p. 8–9, fig. 3 A–D; Uschakov and Wu, 1979: p. 53–54, fig. 17 A–D; Imajima and Takeda, 1987: p. 68–70, fig. 13
Nephtys caeca var. *ciliata* a–n, fig. 14 Okuda, 1939: p. 231, fig. 6.

Material Examined.—St. A04, 37°00′N 125°00′E, 56 m, 13 specimens; St. A05, 37°00′N 124°30′E, 74 m, 3 specimens.

Description.—Largest specimen measures 47 mm in length, about 2.2 mm in width, and 80 setigers.

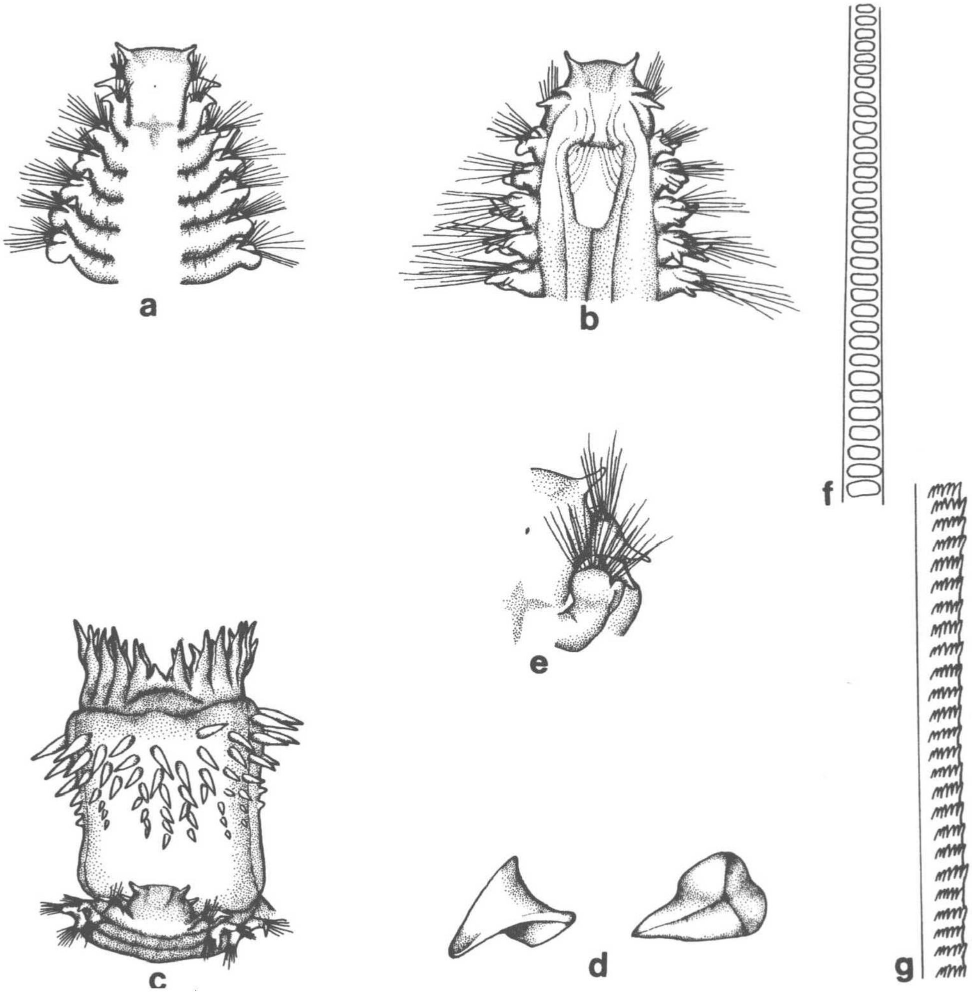

Figure 6. *Nephtys californiensis* Hartman:a, anterior end, in dorsal view, ×60; b, the same, in ventral view, ×60; c, a part of proboscis, in dorsal view, ×140; d, jaws, ×140; e, first parapodium, in dorsal view, ×140; f, part of barred seta in preacicular fascicle, ×1,250; g, part of spinulose seta in postacicular fascicle, × 1,250.

Prostomium approximately rectangular. Two pair of antennae. First pair continuous with frontal margin, directed obliquely. Second pair inserted on ventral side of the prostomium. Pigmentation in shape of spread eagle present in posterior median part of the prostomium, small dark spot situated in median part of the prostomium. A pair of nuchal organs present in the posterior corner of the prostomium. Eyespots absent (Figs. 6a, b).

Proboscis has 20 bifid terminal papillae; single smaller middorsal and midventral terminal papillae present, 10 bifid terminal papillae present at each side. 22 rows of subterminal papillae with 3–8 in each row present on the distal two-third of the proboscis that gradually diminish in size proximally. A larger middorsal papillae not present. Proximal surface of the proboscis smooth (Fig. 6c). Jaws conical, distally pointed (Fig. 6d).

First parapodia biramous, directed anteriorly. Acicular lobes of both rami small, conical. Dorsal and ventral cirri well developed, digitiform (Fig. 6e).

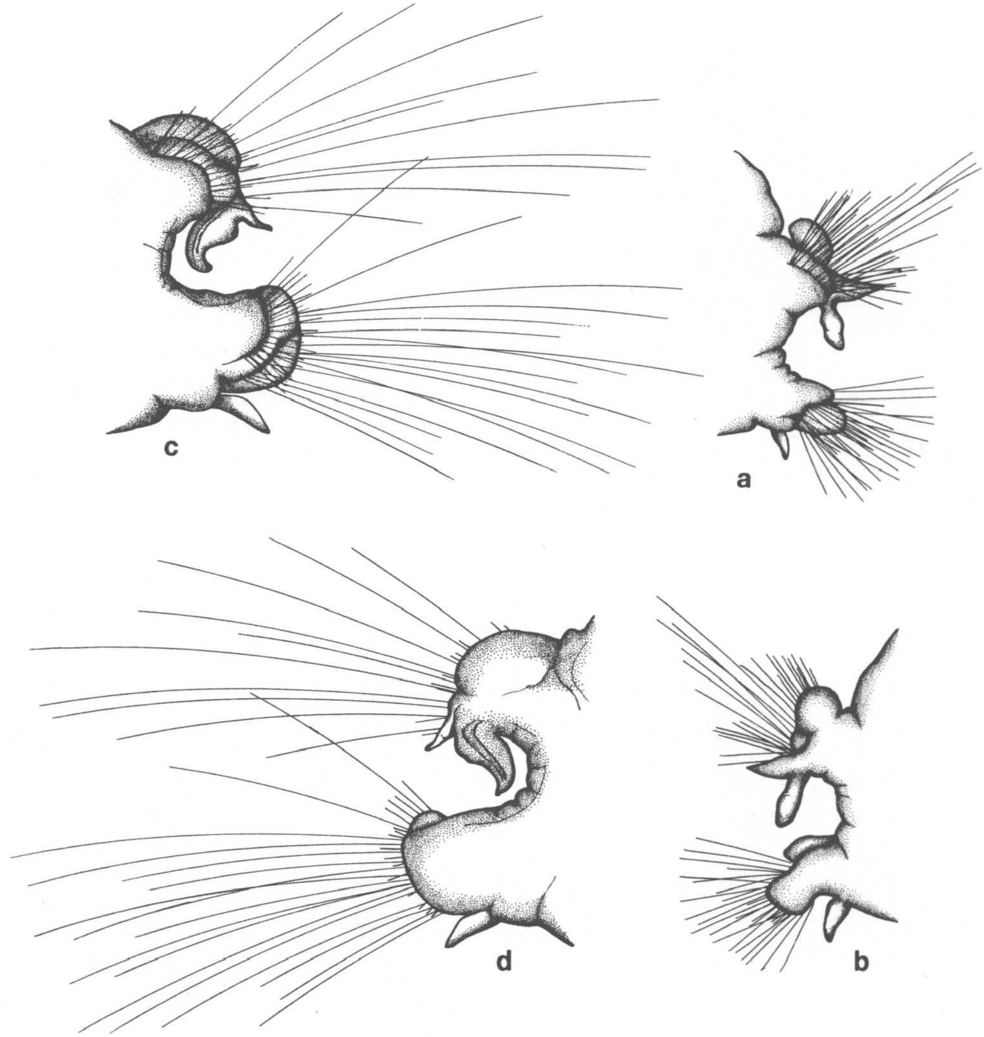

Figure 7. *Nephtys californiensis* Hartman: a, third parapodium, in anterior view, ×140; b, the same, in posterior view, ×140; c, 25th parapodium, in anterior view, ×140; d, the same, posterior view, ×140.

Interramal cirri first present from the third setiger and continue to near the posterior end. In the third parapodium, acicular lobes of both rami triangular. Preacicular lobe of notopodium triangular, lower than the acicular lobe, whereas neuropodial lobe truncated, higher than acicular lobe. Postacicular lobe of notopodium rounded and as long as acicular lobe, whereas neuropodial lobe lingulate and extends beyond the tip of the acicular lobe. Dorsal cirrus conical, distally pointed, neuropodial one digitiform (Fig. 7a, b).

In the 25th parapodium, interramal cirrus well developed, recurved. Acicular lobes of both rami bilobed. Preacicular lobes of both rami rectangular, lower than acicular lobe. Postacicular lobes of both rami as long as the acicular lobe. Notopodial postacicular lobe rounded, whereas the neuropodial lobe slightly rectangular (Fig. 7c, d).

Setae of two types. Preacicular fascicle barred, short (Fig. 6f). Postacicular facicle very long and has spinulose setae with fine denticles on cutting edge (Fig. 6g).

Distribution.—Northern and southern California, Gulf of Mexico, China, Japan, Korea.

Habitat.—This species occurs in muddy sand bottom in the central part of the Yellow Sea which is fairly deep from 56 m to 74 m, but found in clean, sandy beaches, Dillon Beach, California (Hartman, 1938).

Aglaophamus sinensis Fauvel, 1932

Nephtys sinensis Fauvel, 1932: p. 536–537, fig. 1, a–c; Treadwell, 1936: p. 276.
Nephtys (*Aglaophamus*) *sinensis* Uschakov and Wu, 1962: p. 26–27, plate IV, A–C.
Aglaophamus sinensis Hartman, 1950: p. 117; Fauchald, 1968: p. 12–13, pl. 2, 16–18; Imajima, 1970: p. 116, 118; Lee and Jae, 1983: p. 22, fig. 2, pl. 1, G–K; Imajima and Takeda, 1985: p. 65–68. fig. 4 a–i, fig. 5 a–d.

Material Examined.—St. A01, 37°00'N 126°10'E, 40 m, 2 specimens; St. C03, 36°00'N 125°30'E, 64 m, 10 specimens; St. E03, 34°00'N 125°30'E, 104 m, 2 specimens; St. E04, 34°00'N 125°00'E, 93 m, 2 specimens; St. F10, 33°00'N 122°00'E, 24 m, 1 specimen.

Distribution.—East China, Viet Nam, Korea, Japan

Habitat.—This species was found in Korean and Chinese coastal areas of the Yellow Sea in sandy, muddy, and silty sediments from 24 m to 93 m.

Nephtys oligobranchia Southern, 1921

Nephtys oligobranchia Okuda, 1943: p. 100–102, figs. 1–3; Uschakov and Wu, 1962: p. 25–26, pl. 3, I; Uschakov and Wu, 1979: p. 55–57, fig. 17, I; Fauchald, 1968: p. 18, pl. 5, 41–44; Lee and Jae, 1983: p. 23–24, fig. 2, pl. II, E–H; Imajima and Takeda, 1987: p. 47–50, fig. 4 a–h.

Material Examined.—St. F07, 33°00'N 123°30'E, 70 m, 2 specimens; St. F08, 33°00'N 123°00'E, 32 m, 1 specimen.

Distribution.—India, China, Korea, Viet Nam, Japan.

Habitat.—This species occurred in sandy silt sediments at the entrance of the Yellow Sea in water depth from 32 m to 70 m.

Nephtys polybranchia Southern, 1921

Nephtys polybranchia Okuda, 1940: p. 14–15, fig. 7; Uschakov and Wu, 1962: p. 24–25, pl. 3 E–H; Uschakov and Wu, 1979: p. 54–55, fig. 17 E–H; Fauchald, 1968: p. 19–20, pl. 5, 45–48; Lee and Jae, 1983: p. 24; Imajima and Takeda, 1987: p. 54–57, fig. 7 a–j, fig. 8.

Material Examined.—St. A03, 37°00'N 125°30'E, 49 m, 9 specimens; St. A04, 37°00'N 125°00'E, 56 m, 1 specimen; St. C01, 36°00'N 126°18'E, 24 m, 16 specimens; St. C02, 36°00'N 126°00'E, 38 m, 4 specimens; St. D02, 35°00'N 125°30'E, 60 m, 3 specimens; St. D10, 35°00'N 121°30'E, 38 m, 5 specimens; St. G06, 32°00'N 124°00'E, 42 m, 5 specimens; St. G07, 32°00'N 123°30' E, 42 m, 1 specimen.

Distribution.—China, Japan, Viet Nam, Korea.

Habitat.—This species was collected in Korean and Chinese coastal shallow waters of the Yellow Sea at depths of 24–60 m and is widely distributed in silty sand bottoms.

Nephtys caeca Fabricius, 1780

Nephtys caeca Fauvel, 1923: p. 365, fig. 142 a–l; Uschakov, 1955: p. 217, fig. 68; Imajima, 1961: p. 88–89, fig. 4; Uschakov and Wu, 1962: p. 131; Hartman, 1968: p. 575–576, figs. 1–3; Lee and Jae, 1983: p. 24, fig. 2; Imajima and Takeda, 1987: p. 63–67, fig. 12 a–m, fig. 14.

Nephthys caeca Izuka, 1912: p. 213–215; Okuda, 1938: p. 123–244; Okuda and Yamada, 1954: p. 186–187, text-fig. 4.
Nephthys caeca Wesenberg-Lung, 1950: p. 57–58.

Material Examined.—St. C04, 36°00′N 125°00′E, 80 m, 2 specimens; St. D10, 35°00′N 121°30′E, 38 m, 29 specimens.

Distribution.—Greenland, Pacific and Arctic Oceans, China, Japan, Korea.

Habitat.—Collected in Korean and Chinese coasts of the Yellow Sea and found in silty sand bottoms in water depths of 38–80 m.

Nephtys longosetosa Oersted, 1843

Nephthys longosetosa Fauvel, 1923: p. 367, fig. 143, f–h; Wesenberg-Lund, 1950: p. 50; Uschakov, 1955: p. 219, fig. 68, C–E.
Nephtys longosetosa Pettibone, 1963: p. 204–205, fig. 47, a; Lee and Jae, 1983: p. 24, fig. 2; Imajima and Takeda, 1987: p. 60–61, fig. 10 a–i.

Material Examined.—St. A04, 37°00′N 125°00′E, 56 m, 6 specimens; St. A05, 37°00′N 124°30′E, 74 m, 5 specimens; St. A07, 37°00′N 123°30′E, 72 m, 1 specimen; St. C02, 36°00′N 126°00′E, 38 m, 2 specimens; St. G08, 32°00′N 123°00′E, 35 m, 9 specimens.

Distribution.—Greenland, Japan, Atlantic Ocean, North Pacific Ocean, Korea.

Habitat.—Specimens examined from the Yellow Sea were collected from sediments of sandy mud and silty sand in water depths of 35 m–74 m.

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